REMARKS

Claims 1 through 84 are currently pending in the application.

Claims 1 through 42 are withdrawn.

Claims 43 through 84 are rejected.

This amendment is in response to the Office Action of July 12, 2007.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on Yang et al. (U.S. Patent 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279)

Claims 43, 44, 46, 49 through 53, 55, 64, 65, 68 through 72 and 75 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yang et al. (U.S. Patent 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279). Applicants respectfully traverse this rejection, as hereinafter set forth.

Applicants assert that to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure.

Applicants assert that any combination of the Yang et al. reference in view of the Takata et al. reference does not and cannot establish a *prima facie* case of obviousness under 35 U.S.C. § 103 regarding the claimed invention of independent claims 43 and 64 of the claimed inventions because any combination of the cited prior art does not teach or suggest the claim limitations of the claimed inventions.

Turning to the cited prior art, the Yang et al. reference teaches or suggests a stack type flip-chip package that utilizes a redistribution circuit on the back of a chip to serve as a bridge for connecting with other chips.

The Takata et al. reference teaches or suggests in drawing Fig. 4 and the specification associated therewith electrode pads 17a and 17c located on the upper surface of a semiconductor chip 11 connected through metal wires 14 to the inner leads 13a of a lead frame which extend over and cover a portion of the upper surface of the semiconductor chip 11 as well as the upper surface of the semiconductor chip 11 being protected with a polyimide coating having a thickness of 8.5μm. The inner leads 13a are pressed against the upper surface of the semiconductor chip 11 by a jig during the connection of the metal wires 14 to the electrode pads 17a and 17c. The Takada et al. reference teaches or suggests that by varying the pattern of the electrode pads to vary the coating of polyimide on the upper surface of the semiconductor chip 11 the modulus of elasticity of the semiconductor chip 11 may be affected. There in no teaching or suggestion that the electrode pads 17a and 17c either relieve stress or protect the upper surface of the semiconductor chip 11 whatsoever in the Takata et al. reference.

Applicants assert that any combination of the Yang et al. reference in view of the Takata et al. reference does not teach or suggest the claim limitations of the claimed inventions of independent claims 43 and 64 calling for "performing one of decreasing stress acting on the surface of the semiconductor die by placing at least one bond pad on an inactive surface of the semiconductor die causing distributing of the forces therearound and protecting at least a portion of the semiconductor die" and "performing at least one of lowering stress of a portion of the semiconductor die, protecting a portion of the semiconductor die, lowering stress of a portion of the semiconductor die by placing the at least one bond pad on a portion of the inactive surface of the semiconductor die distributing the forces therearound, and protecting a portion of the semiconductor die". Applicants assert that neither the Yang et al. reference contains no teaching or suggestion whatsoever regarding such claim limitations in reference to the distribution circuits on the back of the chip nor the Takata et al. reference contains no teaching or suggestion whatsoever regarding electrode pads 17a and 17c in drawing Fig. 4, nor any combination of the Yang et al. reference in view of the Takata et al. reference contains no teaching or suggestion as to such claim limitations as to how to modify the redistribution circuit on the back of the chip in Yang et al. based on any teaching or suggestion regarding electrode pads 17a and 17c on the active surface of the semiconductor chip of the Takata et al. reference.

Applicants assert that neither the Yang et al. reference nor the Takata et al. reference nor any combination of the Yang et al. reference in view of the Takata et al. reference teach or suggest any such claim limitations such as set forth in independent claims 43 and 64 whatsoever. At best, Applicants assert that the Takata et al. reference teaches or suggests that broadly distributed electrode pads on the upper surface of the semiconductor chip can enhance the modulus of elasticity of the semiconductor package after encapsulation of the semiconductor chip and leads of the lead frame. Applicants assert that such a teaching or suggestion is not related to the claim limitations of independent claims 43 and 64 whatsoever. Applicants assert that choosing a particular distribution pattern of a group of electrode pads to increase the modulus of elasticity of the semiconductor chip has no applicable teaching or suggestion regarding the claim limitations of independent claims 43 and 64. Further, Applicants assert that there has been no showing as to how such relates to any such claim limitations of independent claims 43 and 64, particularly to the claim limitations directed to ". . . decreasing stress acting on the surface of the semiconductor die by placing at least one bond pad on an inactive surface of the semiconductor die causing distributing of the forces therearound and protecting at least a portion of the semiconductor die". Applicants assert that an increase in the modulus of elasticity of a semiconductor chip only increases the stiffness of the semiconductor chip, not reduce the stress to any load applied to the semiconductor chip. That is, the semiconductor chip is less flexible when loaded or has a force applied thereto. Applicants assert that increasing the modulus of elasticity of a semiconductor chip only reduces the amount of deflection of the semiconductor chip when subjected to a bending moment type load, does nothing to reduce the stress level of the semiconductor chip, does nothing to decrease the stress acting on the surface of the semiconductor die by distributing forces around a bond pad, and does nothing having a bond pad protecting a portion of the semiconductor die whatsoever. At best, Applicants assert that the Takata et al. reference merely teaches or suggests that by using a coating on the surface of a semiconductor chip with any arrangement of electrode pads thereon, when the semiconductor chip is subjected to a bending moment, the semiconductor chip deflects less but does not have any stress reduced whatsoever. Applicants assert that there has been no showing whatsoever as to how any stress is reduced or any portion of the semiconductor chip is protected by any

teaching or suggestion of the Takata et al. reference. Therefore, independent claims 43 and 64 are allowable as well as the dependent claims therefrom.

Applicants assert that absent a reason why one of ordinary skill in the art using "common sense" would seek to combine the teachings or suggestions of the cited prior art to make the claimed combination of the cited prior art to solve a problem as set forth in the claim limitations of the claimed inventions, the proposed combination of the cited prior art does not establish a *prima facie* case of obviousness under 35 U.S.C. § 103. Takeda Chem Indus., Ltd. V. Alphapharm Pty., Ltd. Fed. Cir., No. 06-1329, 6/28/07.

Applicant further asserts that to establish a *prima facie* case of obviousness the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, there must be "a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicant's disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

Applicant asserts that such showings have not been met in the rejection of claims 43, 44, 46, 49 through 53, 55, 64, 65, 68 through 72, and 75 based upon any combination of the Yang et al. reference in view of the Takata et al. reference under 35 U.S.C. § 103. Applicants therefore assert that such claims are allowable.

Obviousness Rejection Based on Yang et al. (U.S. Patent 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279), and further in view of Chu et al. (U.S. Patent Publication No. 2004/0099,961)

Claims 47, 48, 62, 63, 66, 77, 83 and 84 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yang et al. (U.S. Patent 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279) as applied to claims 43 and 64 above, and further in view of Chu et al. (U.S. Patent Publication No. 2004/0099961). Applicants respectfully traverse this rejection, as hereinafter set forth.

Applicants assert that claims 47, 48, 62, 63, 66, 77, 83, and 84 are allowable as they depend from allowable independent claims 43 are 64 for the reasons set forth hereinabove.

Obviousness Rejection Based on Yang et al. (U.S. Patent No. 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279), and further in view of Doan (U.S. Patent Publication No. 2005/0167798)

Claims 54, 56, 57, 61, 73, 74, and 76 through 78 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yang et al. (U.S. Patent No. 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279) as applied to claims 43, 49, 64, 66 and 68 above, and further in view of Doan (U.S. Patent Publication No. 2005/0167798). Applicants respectfully traverse this rejection, as hereinafter set forth.

Applicants assert that claims 54, 56, 57, 61, 73, 74, and 76 through 78 are allowable as they depend from allowable independent claims 43 are 64 for the reasons set forth hereinabove.

Obviousness Rejection Based on Yang et al. (U.S. Patent No. 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279), and further in view of Kuo et al. (U.S. Patent Publication No. 2005/0121804)

Claims 45, 58 through 60, and 79 through 82 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yang et al. (U.S. Patent No. 6,768,190) in view of Takata et al. (U.S. Patent Publication No. 2002/0027279) as applied to claims 43 and 64 above, and further in vie

w of Kuo et al. (U.S. Patent Publication No. 2005/0121804). Applicants respectfully traverse this rejection, as hereinafter set forth.

Applicants assert that claims 45, 58 through 60, and 79 through 82are allowable as they depend from allowable independent claims 43 are 64 for the reasons set forth hereinabove.

Applicants submit that claims 43 through 84 are clearly allowable over the cited prior art.

Applicants request the allowance of claims 43 through 84 and the case passed for issue.

Respectfully submitted,

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